

**REMARKS**

Claims 1 and 4-6 are all the claims presently being examined in the application.

Claims 9-10 have been canceled.

Applicant submits that the claimed invention is patentable over the prior art of record including NAGAHAMA, for all of the reasons primarily set forth in the April 9, 2008, Amendment incorporated herein by reference.

Again, referring to the January 9, 2008, Office Action, the Examiner asserts that the arguments: "one of ordinary skill in the art would not dope a crack-preventing layer in this range due to the increase in resistance." is not persuasive, since "it has been established that lower dopant concentrations have benefits (better crystal quality and lower leakage) as well as drawbacks (increased resistance)". (see paragraph 5, on page 5 of the Office Action;

*Response to Arguments*)

The Examiner seems to simply state that "leakage current" is decreased by decreasing a dopant concentration in the context of an integrated circuit.

However, "leakage current" is not proper (or, does not make sense) for a laser diode. If anything, an "over-flow current" is a problem. The over-flow current of the laser diode, i.e., two-terminal p-n junction device, is a current flowing from a p-layer to an n-layer. The over-flow current does not contribute to a lasing operation, since light emission is caused by recombination of electrons and holes injected from the n-layer and the p-layer, respectively, into an active layer which is an i-layer between the n-layer and the p-layer.

Thus, the Examiner's assertion regarding the dopant concentration in the context of "leakage current" is not proper.

The combination of features of the present invention including "the crack-preventing layer having a low dopant concentration" is neither disclosed nor suggested by

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NAGAHAMA, either alone or in combination, with Kano.

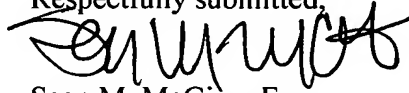
Indeed, Kano fails to make up for the deficiencies of NAGAHAMA.

#### **FORMAL MATTERS AND CONCLUSION**

In view of the foregoing, Applicant submits that claims 1 and 4-6, all the claims presently being examined in the application, are patentably distinct over the prior art of record and are in condition for allowance. Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiencies in fees or to credit any overpayment of fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,



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